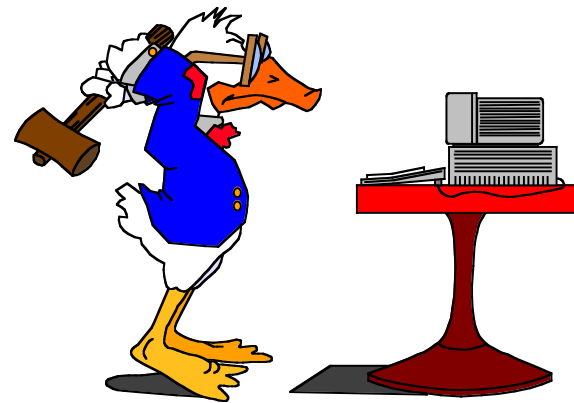


ECS REQUIREMENTS MANAGEMENT PROCESS USING RTM

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Agenda

- **RTM Standard & Procedures Document -- How to Use It**
- **What Change Drivers Initiate a CCR**
- **Key Process Roles**
- **Reference Documents**
- **ECS CCB Change Control Four Phase Process**
 - **Phase I - Origination/Preparation**
 - **Phase II- CCB Review/Approval**
 - **Phase III- CCR Implementation Process**
 - **Phase IV- QO and CCR Closure**
- **Conclusion “RTM is Your Friend”**

RTM Standard & Procedures Document - - How to Use It

- **Do not read the RTM Standards & Procedures from beginning to end.**
- **Review Part I - “RTM Change Control Process” (Section 1.2) first**
- **Read other sections as you participate in the process. The rest of the document is designed to be referenced as a Users Guide that is to be search when a specific activity is being performed by the user. Parts II- IV expand on the main process out lined in Section 1.2**
- **This document will be updated on a regular basis as the ECS project evolves. The document will be located on the CM Homepage.**

What Change Drivers Initiate a CCR

The ECS CCB will issue an action item for a requirements change in RTM when, for example:

- **GSFC has issued a modification or change order of the Level 3 requirements document(F&PRS).**
- **A release organization wants to change one or more level 4 requirements or change an attribute in the RBR as a result of their analysis.**
- **GSFC has issued an IRD change.**
- **An attribute needs to be added to an RTM class.**
- **Inconsistent or conflicting data has been found in the database.**
- **A database audit has been completed by QO.**

IMPORTANT: No matter what the source of the change, this RTM Process must be followed. Even in the event of a 'rush situation' all elements of this process must be fulfilled. Any short cuts taken or steps ignored may corrupt the integrity of the database.

Key Process Roles

Originator - the person technically responsible for identifying a need for a requirement change. This person initiates the whole CCR process. Even the smallest missed step in following procedures at this point will become difficult to manage later in the process.

Coordinator - this person is responsible for the CCR from the point of approval at the CCB through the implementation and closure phase. The coordinator is assigned by the CCB and will be, in many cases, the originator. This will vary.

Configuration Management Office (CMO) - A point of contact in the CMO will collect all information from the originator, ensure adherence to the process, and provide access for Configuration Control Board (CCB) to the project CCRs through the CMO homepage.

RTM Administrator - this person from SMO will ensure process adherence, provide technical guidance of the requirements change impacts at a system level, and provide support on the use of RTM tool to track requirements.

Key Process Roles (continued)

Quality Office - this point of contact within QO will ensure process adherence, verify and validate CCR implementation, and provide periodic integrity audits of the database.

Data entry - this person can either come from the Originators organization or, whenever possible, provided by SMO. This person works closely with the Coordinator to implement the data entry portion of the approved CCR.

The Reviewer - this is a critical role provided by the CCB members. As a CCB member representing a specific organization, each CCR must be carefully checked for direct impacts. The requirements are such that it can never be assumed that a CCR from one organization does not affect another organization.

RTM DBA - this person provides access privileges needed for users to access to the tool via request from the RTM coordinator. Once the CCR work has been completed and QAed, DBA will receive notification from the RTM coordinator and revoke all update accesses. Depending upon the nature of the CCR, the DBA also performs CCR work. If requested, the DBA is the only person to update the RTM schema and attribute definitions in the RTM database.

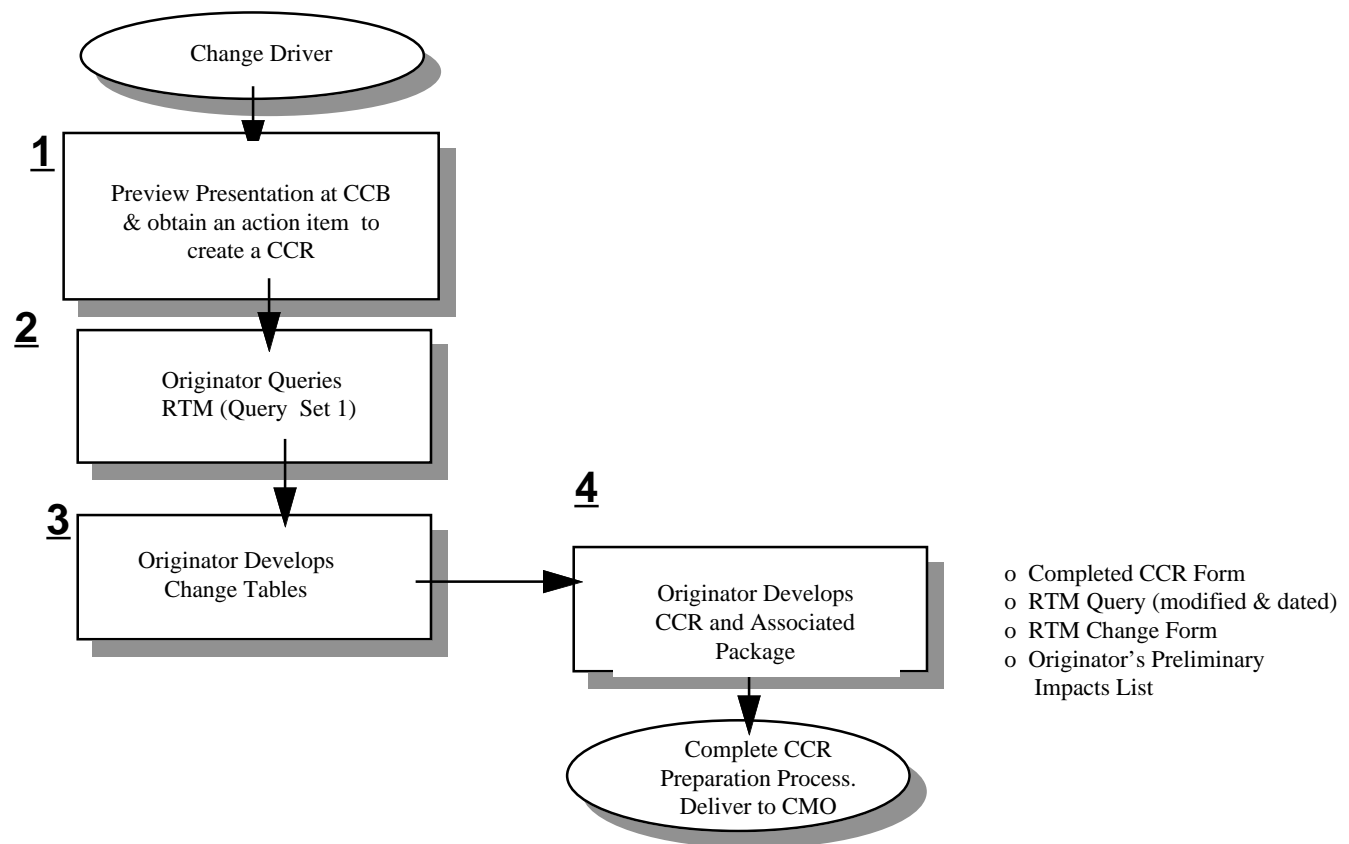
Reference Documents

Reference the following documents when participating in the RTM Change Control Process:

- **PI-CM-1-004 “ECS Change Control Board Process**
- **SE-1-004 “RTM Database Standards & Procedures**
- **ECS RTM Schema & Data Dictionary**
- **ECS Project RTM Training Course Slides**
- **RTM user’s manual**

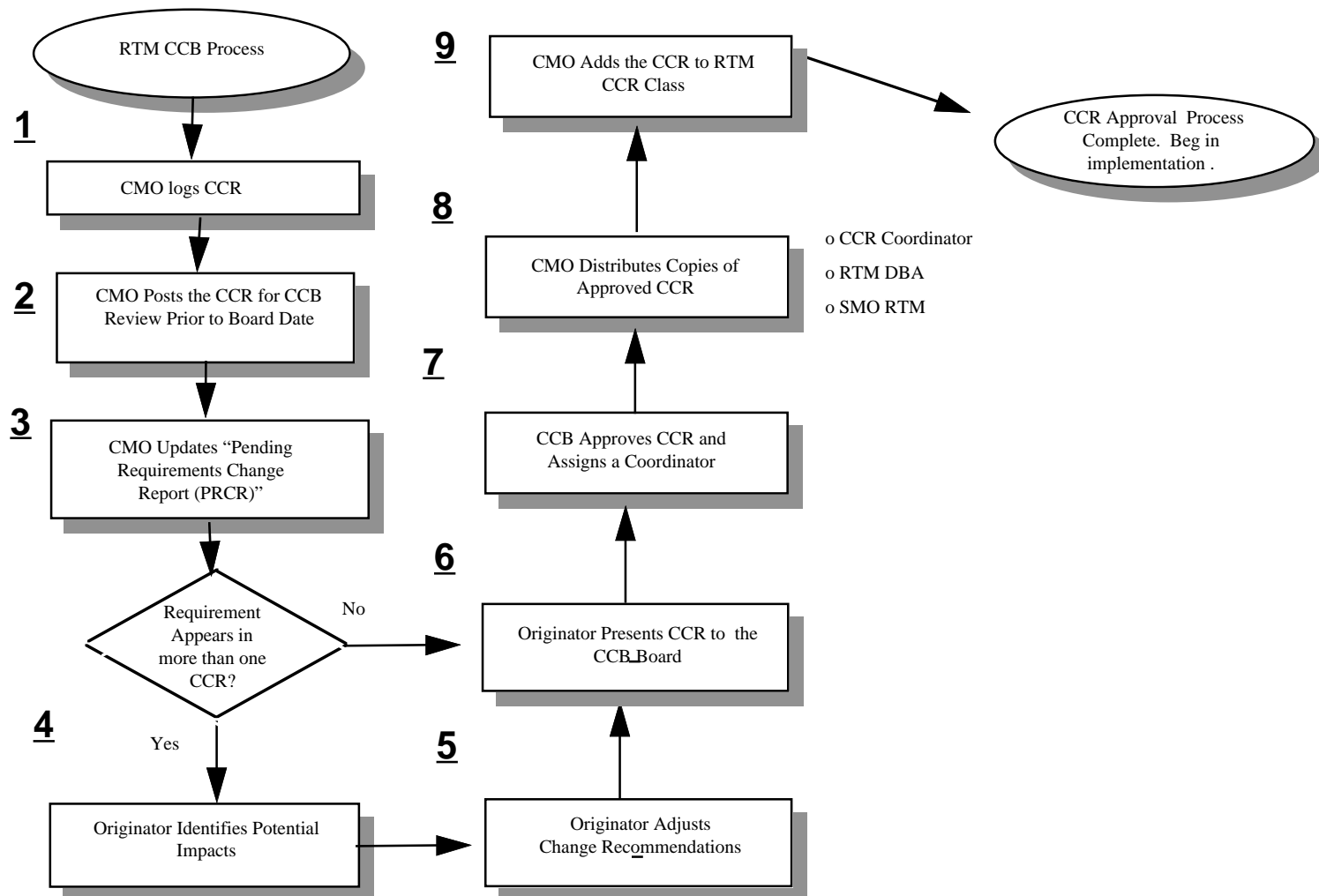
Phase I

Figure 1.2.1 - CCR Origination/Preparation
(Phase I)



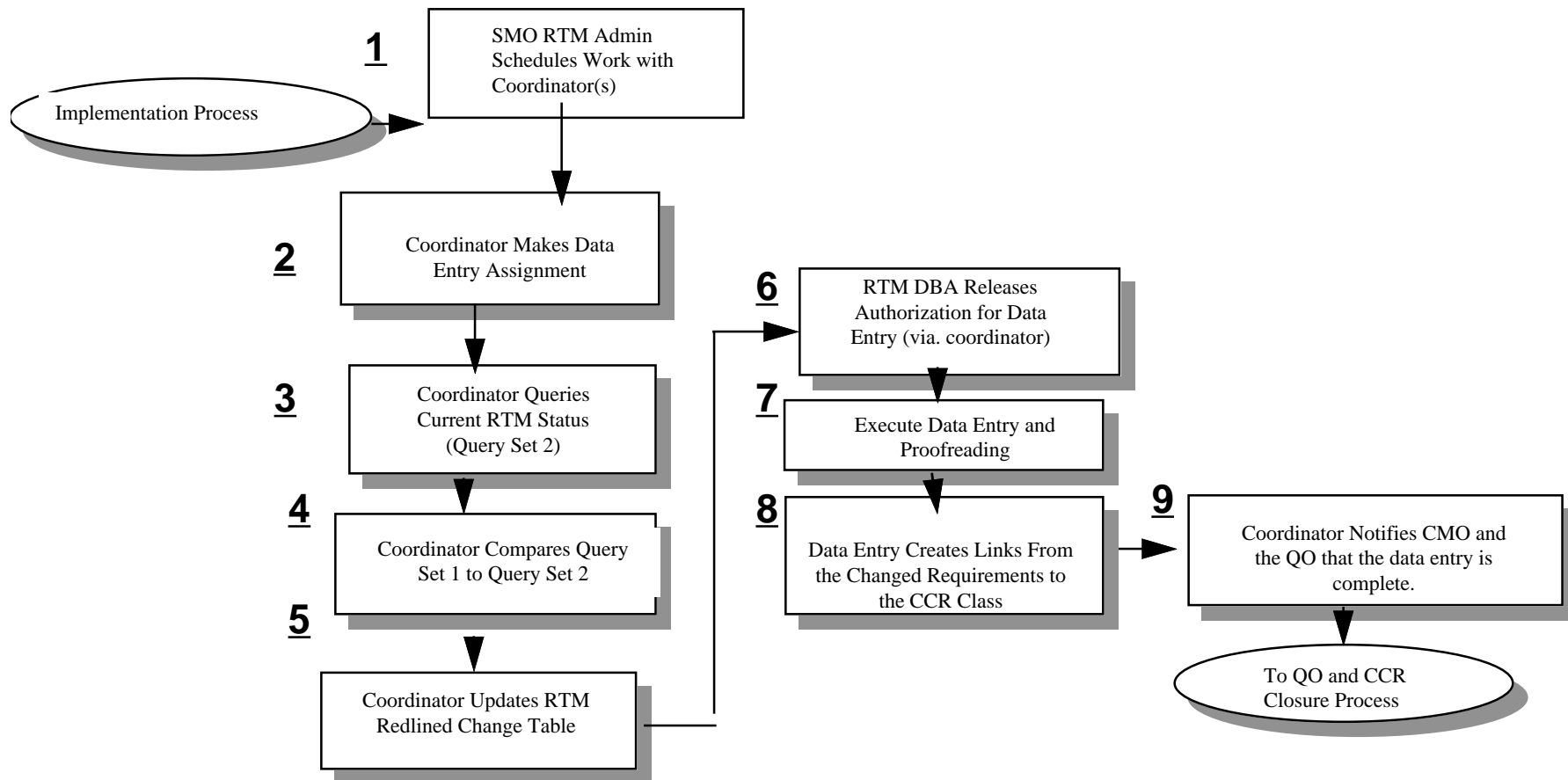
Phase II

Figure 1.2.2 - CCB Review/Approval (Phase II)



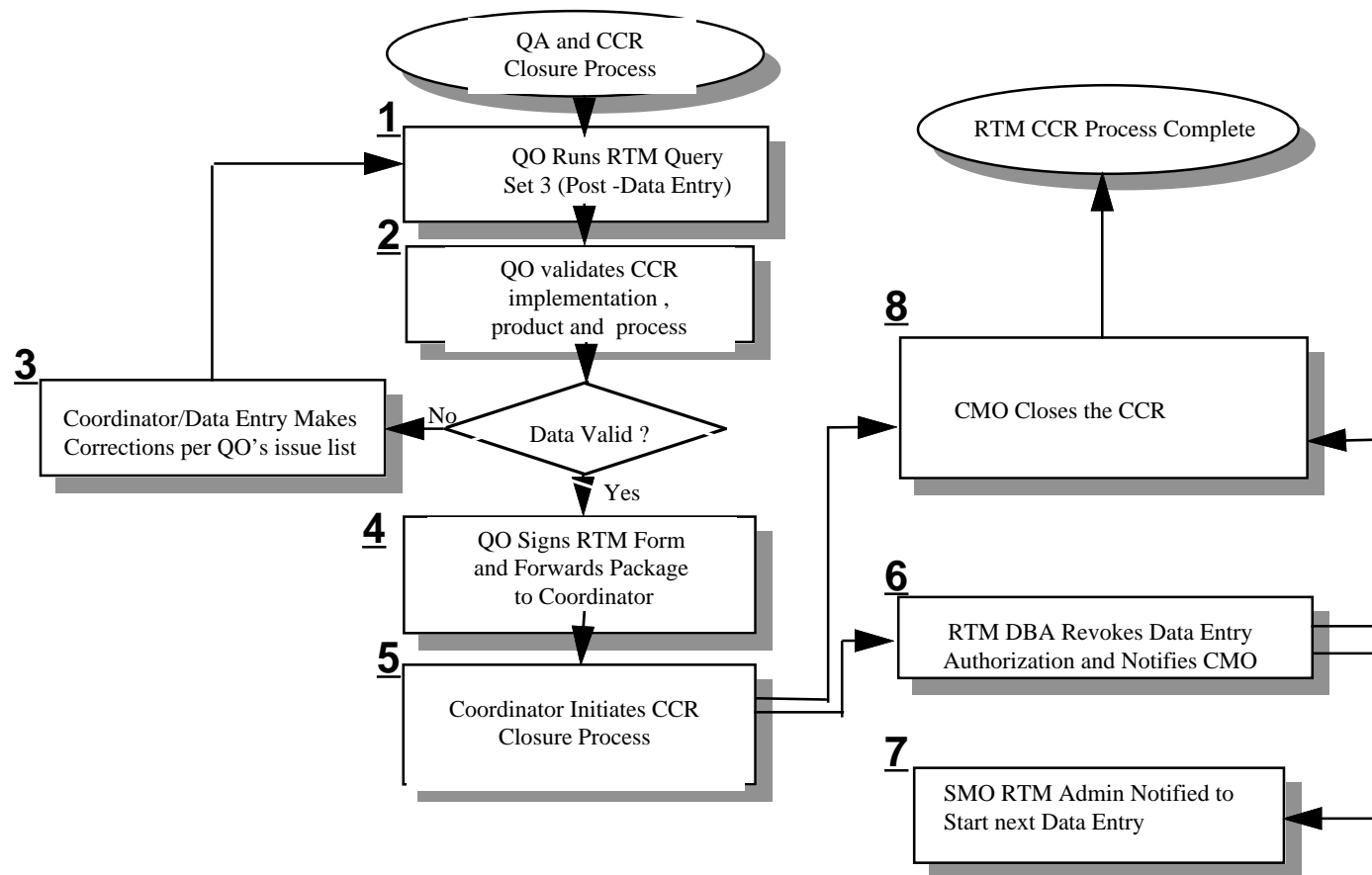
Phase III

Figure 1.2.3 - CCR Implementation (Phase III)



Phase IV

Figure 1.2.4 - QO and CCR Closure (Phase IV)



Conclusions

- **Process may seem overly constrained, but it has been developed through the school of hard knocks.**
- **This task and the use of the tool is not just about storing and retrieving requirements; it involves careful maintenance of database integrity and exposure of ECS requirements to IV&V scrutiny**
- **Work on use of the tool for analysis, as well as the mundane task of data entry and retrieval; tools developed by Roger Gabin external to RTM tool will also help in your analysis functions.**
- **Please look at your charts and lessons from today and read the RTM PI BEFORE you start writing a CCR. CCRs which are not according to standard to get reject by the CMO office.**

**“RTM is your
Friend”**

